ESRI
RESEARCH
BULLETIN
NOVEMBER
2020

DOES FORMAL HOME CARE REDUCE INPATIENT LENGTH OF STAY?

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Does formal home care reduce inpatient length of stay?[1]

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INTRODUCTION

Formal home care can be an appropriate substitute for acute hospital care. However, it is not always available. For older patients in particular, additional days in hospital often occur even after they have been cleared for discharge. Failure to discharge patients home promptly can lead to negative consequences for patients' quality of life, can take up scarce hospital capacity, and can increase costs for the health system.

There is little research in Ireland or internationally that measures the extent to which home care can serve as a substitute for hospital care. The present study examined whether patients from regions in Ireland with a higher supply of home care spent less time in hospital as inpatients. In addition, the study tested whether the relationship is stronger for those with very long lengths of stay or who may be particularly suited to using home care.

DATA AND METHODS

This study used Hospital In-Patient Enquiry (HIPE) data on over 300,000 public hospital emergency inpatient admissions aged 65 years and older between 2012 and 2015. This information was linked to monthly data from the Health Service Executive (HSE) on the number of home care hours delivered through the home help and home care package schemes in each local health office area.

The study examined whether having a higher relative supply of home care per capita in a local health area reduced hospital length of stay for patients from that

[1] This Bulletin summaries the findings from: Walsh, B., Lyons, S., Smith, S., Wren, M-A., Eighan, J. and Morgenroth, E., "Does formal home care reduce inpatient length of stay?", *Health Economics*, https://doi.org/10.1002/hec.4158

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area, both in general and among particular types of patients expected to be especially amenable to substitution of home care for acute hospital treatment.

RESULTS

There were large variations in how much home care was supplied per capita across local health areas and per capita supply was not equally distributed across the country. Lengths of stay in hospital were shorter for those living in local health areas with a better supply of home care. A 10% increase in home care hours per capita was associated with a 1.2% to 2.1% decrease in the average length of stay in hospital.

Substitution between home care and hospital length of stay was strongest among those with the longest length of stay. Examining cases with a length of at least 21 days, a 10% increase in home care supply was associated with up to a 3.5% (1.2 days) decrease in length of stay. Substitution was also stronger among patients with conditions that might be expected to benefit most from use of home care (stroke or hip fracture patients), where a 10% increase in home care supply was associated with up to a 3.1% decrease in length of stay. Disproportionately large reductions in length of stay were also found for patients from Dublin North, where a particularly large increase in home care occurred during the period studied.

POLICY CONCLUSIONS

Significant expansion of home care services is likely to be required to meet future demand, which is expected to grow as the population ages. We find that increasing home care supply will also allow some people to leave hospital earlier. However, since the strength of the substitution effect was relatively modest among patients more generally, expanding the supply of home care is unlikely to make as much of a contribution to reducing acute hospital demand as some have assumed.

In addition, these findings strike a cautionary note about the design of efficiency incentives within the acute hospital system. Many factors that affect patient length of stay, such as local supply of home care, are outside of the control of hospital management. Policies such as efficiency incentives that focus on those aspects of patient care that hospital management can control, and better integrate hospital and non-hospital care, are required to reduce length of stay across hospitals.

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